REMARKS

Claim 1 has been amended to incorporate the subject matter of Claim 11. Claim 4 has been amended to more clearly comply with the enablement requirement. Upon entry of this Amendment, which is respectfully requested, Claims 1-10 and 12-19 will be pending.

Response to Rejections Under § 112

Claim 4 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

Claim 4 has been amended to more clearly comply with the enablement requirement. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 4 and 11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claim 4 has been amended to more clearly define the subject matter which Applicants regard as the invention. Claim 11 has been canceled. Accordingly, withdrawal of the rejection is respectfully requested.

Response to Objection to the Specification

The specification is objected to because of repeated references to negative pressures.

Without commenting on the veracity of the objection, the specification has been amended to remove references to negative pressures. Accordingly, withdrawal of the objection is respectfully requested.

Response to Rejection Under § 103

Claims 1-10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,230,497 to Schwetz in view of U.S. Patent No. 5,001,088 to Hauptmann. Applicants respectfully traverse.

A nitrogen doped (nitrogen rich) silicon carbide sintered body has excellent electrical properties as a heater. This is a result of the resistance (R) of the silicon carbide sintered body being reduced by nitrogen doping.

Present Claim 1 recites a method of producing silicon carbide wherein during a raw materials preparation step, silicon carbide powder is heated under an argon atmosphere before the silicon carbide is mixed in solvent. As a result of this preparation step variation of the nitrogen density is controlled. Claim 1 further recites a heating step wherein a green body is heated under an a nitrogen atmosphere. As a result of this step the precision of nitrogen density is improved.

Schwetz discloses a process for manufacturing dense sintered shaped articles of polycrystalline α-silicon carbide. See, col. 1, lines 6-9. Schwetz further discloses as background a process wherein a green body is subjected to pressureless sintering in an inert atmosphere, and in order to obtain high densities (e.g., above 95% TD), the pressureless-sintering process has to be carried out in the presence of flowing nitrogen gas. *See,* col. 2, lines 51-58.

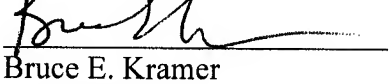
However, Schwetz discloses (1) because of the structural inhomogeneity of sintered articles formed by the above process, such sintered silicon carbide articles are insufficient for use in high temperature engineering (*See,* col. 3, lines 1-3); and (2) that the introduction of nitrogen during the sintering process by using a protective gas atmosphere containing nitrogen has not proved advantageous since quantitatively accurate doping cannot be achieved in this manner and because the increase in the sintering temperature necessary in this case makes it more difficult to carry out the process (*See,* col. 6, lines 27-33). Thus, Schwetz teaches away from sintering silicon carbide in a nitrogen atmosphere.

Hauptmann fails to make up for this deficiency. As such, one skilled in the art would not be motivated by Schwertz and Hauptmann to develop the present invention. Accordingly, Schwertz and Hauptmann fail to render obvious the present claims. Withdrawal of the rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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